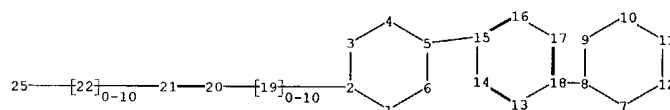
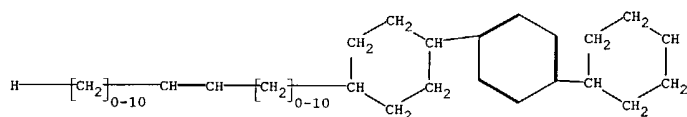


## WEST Search History

DATE: Monday, September 06, 2004

Hide?	Set Name	Query	Hit Count
	<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=ADJ</i>		
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END OF SEARCH HISTORY



chain nodes :

19 20 21 22 25

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

chain bonds :

2-19 5-15 8-18 19-20 20-21 21-22 22-25

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14  
13-18 14-15 15-16 16-17 17-18

exact/norm bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

exact bonds :

2-19 5-15 8-18 19-20 20-21 21-22 22-25

normalized bonds :

13-14 13-18 14-15 15-16 16-17 17-18

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom  
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom  
18:Atom 19:CLASS 20:CLASS 21:CLASS 22:CLASS 25:CLASS

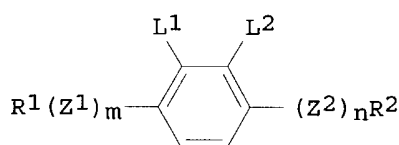
AN 1995:546748 CAPLUS  
 DN 123:270892  
 ED Entered STN: 13 May 1995  
 TI Fluorobenzene derivative and liquid-crystal medium  
 IN Reiffenrath, Volker; Bremer, Matthias; Rieger, Bernhard; Junge, Michael;  
 Tarumi, Kazuaki  
 PA Merck Patent G.m.b.H., Germany  
 SO Ger. Offen., 46 pp  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM C07C043-225  
 ICS C07C043-215; C07C043-21; C07C043-205; C07C025-24; C07C025-18;  
 C09K019-30; G02F001-13; G09F009-35  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 25, 75  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4426799	A1	19950209	DE 1994-4426799	19940728
	JP 07053432	A2	19950228	JP 1994-182640	19940803
PRAI	DE 1993-4325986		19930803		
	DE 1993-4327737		19930818		
	DE 1994-4409913		19940323		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 4426799	ICM	C07C043-225
	ICS	C07C043-215; C07C043-21; C07C043-205; C07C025-24; C07C025-18; C09K019-30; G02F001-13; G09F009-35

OS MARPAT 123:270892  
 GI



AB The fluorobenzene derivative has the formula I [R1 = H, alkyl or alkenyl optionally substituted with CN, CF3 or a halogen where  $\geq 1$  CH2 groups are replaced by O, S, 1,3-cyclobutylene, CO, CO2, O2C, OCO2; R2 = alkoxy or under certain conditions alkyl; Z1, Z2 = trans-1,4-cyclohexylene, 2,3,6-trihydro-p-phenylene, 2-L3,3-L4-p-phenylene, 3,5-difluoro-p-phenylene; m, n = 0-2; m + n  $\geq 1$ ]. Nine other variations of the above Markush structures are also claimed. The compds. can be used as dielec. material in electrooptical devices.

ST fluorobenzene deriv liq crystal medium; electrooptical device dielec material fluorobenzene

IT Electric insulators and Dielectrics  
 (fluorobenzene derivs. for liquid crystal medium)

IT Optical imaging devices  
 (electrooptical liquid-crystal, fluorobenzene derivs. as dielec. material)

IT 58743-75-2 58743-76-3 61203-99-4 61204-01-1 63221-88-5  
 80944-44-1 84540-37-4 86776-50-3 86776-51-4 86776-52-5  
 116020-36-1 116903-46-9 116903-47-0 116903-48-1 116903-49-2

121553-94-4 163004-89-5 163004-90-8 163005-00-3 163005-04-7  
RL: DEV (Device component use); MOA (Modifier or additive use); USES  
(Uses)

(component for liquid crystal composition)

IT 76802-59-0 76802-61-4 81711-13-9 84816-56-8 85312-59-0  
102714-93-2 106349-49-9 121219-85-0 133914-49-5 133914-50-8  
133937-72-1 134412-17-2 135734-59-7 135734-60-0 163005-09-2  
RL: DEV (Device component use); MOA (Modifier or additive use); USES  
(Uses)

(dielec. material for liquid crystal medium)

IT 145767-56-2P **163004-85-1P** 163004-89-5P 163004-90-8P  
163004-93-1P 163004-94-2P 163004-95-3P 163004-96-4P 163004-97-5P  
163004-98-6P 163004-99-7P 163005-00-3P 163005-01-4P 163005-02-5P  
163005-03-6P 163005-04-7P 163005-05-8P 163005-06-9P 163005-07-0P  
163005-08-1P

RL: DEV (Device component use); MOA (Modifier or additive use); SPN  
(Synthetic preparation); PREP (Preparation); USES (Uses)

(dielec. material for liquid crystal medium)

IT 163004-78-2P 163004-79-3P 163004-80-6P 163004-81-7P 163004-82-8P  
163004-83-9P 163004-84-0P 163004-86-2P 163004-87-3P 163004-88-4P  
163004-91-9P 163004-92-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(dielec. material for liquid crystal medium)

IT 163060-89-7 163250-92-8  
RL: DEV (Device component use); USES (Uses)  
(liquid-crystal composition)

IT **163004-85-1P**

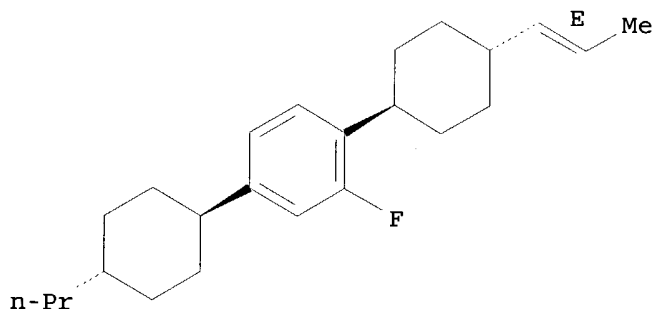
RL: DEV (Device component use); MOA (Modifier or additive use); SPN  
(Synthetic preparation); PREP (Preparation); USES (Uses)

(dielec. material for liquid crystal medium)

RN 163004-85-1 CAPLUS

CN Benzene, 2-fluoro-1-[4-(1-propenyl)cyclohexyl]-4-(4-propylcyclohexyl)-,  
[1 $\alpha$ (trans),4 $\beta$ (E)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.  
Double bond geometry as shown.



AN 1997:640630 CAPLUS  
 DN 127:339303  
 ED Entered STN: 09 Oct 1997  
 TI Bialkenyl derivatives, liquid crystalline compounds and liquid crystal compositions  
 IN Kato, Takashi; Matsui, Shuichi; Miyazawa, Kazutoshi; Sekiguchi, Yasuko; Nakagawa, Etsuo  
 PA Chisso Corp., Japan  
 SO PCT Int. Appl., 116 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C07C022-00  
 ICS C09K019-30; C09K019-40; C07C025-24; C07C069-76; C07C043-192; C07F007-08  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 75

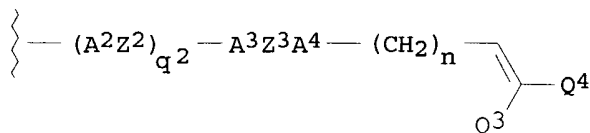
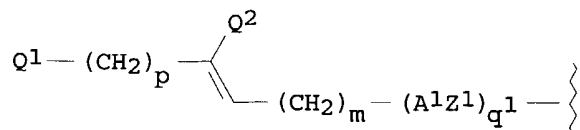
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9734855	A1	19970925	WO 1997-JP700	19970306
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	JP 10045639	A2	19980217	JP 1997-24331	19970123
	AU 9722324	A1	19971010	AU 1997-22324	19970306
	EP 891314	A1	19990120	EP 1997-905457	19970306
	EP 891314	B1	20010905		
	R: DE, FR, GB				
	CN 1214036	A	19990414	CN 1997-193138	19970306
	CN 1110470	B	20030604		
	US 6180027	B1	20010130	US 1998-101990	19980722
PRAI	JP 1996-90585	A	19960318		
	WO 1997-JP700	W	19970306		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9734855	ICM	C07C022-00
	ICS	C09K019-30; C09K019-40; C07C025-24; C07C069-76; C07C043-192; C07F007-08
US 6180027	ECLA	C07C017/26B; C07C022/00; C07C022/08; C07C025/18; C07C043/192; C07C045/44; C07C045/44; C07C045/51B4; C07C047/225; C07C047/26B; C07C047/45; C07C047/453; C07C047/543; C07F007/08C6B; C07F007/08H; C09K019/04; C09K019/30A

OS MARPAT 127:339303  
 GI



I

AB Liquid crystalline compds. expressed by formula I (A1-4 = trans-1,4-cyclohexylene, etc.; Z1-3 = (CH2)2, etc.; Q1-2 = H, F, Cl, Br; Q3-4 = F, Cl, Br; m,n,p = integer 0-5; q1-q2 = integer 0-1), liquid crystal compns. thereof obtained by combination with specified liquid crystal compds., and liquid crystal display devices using them are disclosed. The compns. provide a wide liquid crystal phase temperature range.

ST bialkenyl liq crystal compn display

IT Liquid crystal displays

(liquid crystal compns. containing bialkenyl derivs. for)

IT	7465-91-0	22692-80-4	38444-13-2	40817-08-1	41122-71-8	52709-83-8
	52709-86-1	54211-46-0	56131-48-7	56131-49-8	57202-25-2	
	57202-28-5	58743-75-2	58743-76-3	61203-99-4	61204-01-1	
	61204-03-3	63221-88-5	63617-61-8	64835-59-2	67131-97-9	
	67589-39-3	67589-41-7	67589-47-3	67589-52-0	67589-53-1	
	67589-54-2	67589-69-9	68065-81-6	70602-95-8	72928-54-2	
	74240-64-5	74240-65-6	76802-59-0	76802-61-4	79912-83-7	
	79912-85-9	80944-44-1	81701-13-5	81711-13-9	81782-74-3	
	81793-57-9	82356-54-5	82406-83-5	82832-27-7	82832-32-4	
	82832-57-3	84360-96-3	84361-05-7	84655-98-1	84656-75-7	
	84656-77-9	84656-92-8	85312-59-0	85583-83-1	86503-56-2	
	86579-52-4	86776-50-3	86776-51-4	86776-52-5	86786-89-2	
	87073-93-6	87073-94-7	87260-24-0	88416-69-7	88416-84-6	
	88580-93-2	88639-41-2	88878-50-6	89139-36-6	89356-02-5	
	89409-90-5	92118-81-5	92118-82-6	92118-83-7	92118-84-8	
	92178-49-9	94840-77-4	95495-03-7	95495-15-1	95495-17-3	
	95495-18-4	95906-29-9	95906-34-6	96184-40-6	96624-52-1	
	97398-74-8	97398-75-9	98495-10-4	98495-11-5	98495-16-0	
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	107949-21-3	112026-68-3	116090-24-5	116090-26-7	116090-30-3	
	116090-33-6	116090-36-9	116090-37-0	117923-19-0	117923-21-4	
	117923-23-6	117943-37-0	118164-50-4	118164-51-5	120893-64-3	
	121219-85-0	123787-68-8	128140-58-9	128832-68-8	129738-42-7	
	131819-23-3	131819-24-4	131819-25-5	132123-39-8	132123-45-6	
	132123-46-7	133914-49-5	133914-50-8	133937-72-1	134412-17-2	
	134412-18-3	135734-59-7	135734-60-0	136159-76-7	136903-59-8	
	136922-42-4	137019-95-5	137529-56-7	137547-79-6	137644-54-3	
	137784-79-3	139136-72-4	139215-89-7	139420-31-8	140221-27-8	
	144583-01-7	145131-04-0	145918-41-8	146781-29-5	146781-31-9	
	148462-51-5	148462-52-6	148809-22-7	148809-23-8	153429-48-2	
	155041-85-3	156326-16-8	161142-00-3	174303-22-1	174303-26-5	
	175859-23-1	175859-24-2	175859-25-3	175859-28-6	175859-31-1	
	178689-87-7	182350-41-0	182350-45-4	183145-19-9	184161-94-2	
	186320-72-9	196870-32-3	197012-69-4	197804-30-1	197804-31-2	
	197804-32-3	197804-33-4	197804-34-5	197804-37-8	197804-51-6	
	197804-52-7	197804-53-8	197804-67-4	197804-70-9	197804-75-4	
	197804-76-5	197804-77-6	197804-78-7	197805-90-6	197805-91-7	

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(electrooptical display devices using liquid crystal compns. containing)

IT 79945-42-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(electrooptical display devices using liquid crystal compns. containing)

IT 197804-71-0 197804-72-1 197804-74-3  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(liquid crystal composition for electrooptical display devices)

IT 140922-73-2P 189361-87-3P, Methyl trans-4-(trans-4-(3-butenyl)cyclohexyl)cyclohexane carboxylate 189361-88-4P, trans-4-(trans-4-(3-Butenyl)cyclohexyl)cyclohexane carbaldehyde 197804-17-4P 197804-18-5P 197804-21-0P, Methyl trans-4-(trans-4-(4-(3-butenyl)phenyl)cyclohexyl)cyclohexane carboxylate 197804-22-1P, trans-4-(trans-4-(4-(3-Butenyl)phenyl)cyclohexyl)cyclohexane carbaldehyde 197804-25-4P, Methyl trans-4-(4-(4-(trans-4-(3-butenyl)cyclohexyl)phenyl)phenyl)cyclohexane carboxylate 197804-27-6P 197804-28-7P 197804-29-8P, trans-4-(trans-4-(3-Butenyl)cyclohexyl)cyclohexyl propanal  
RL: DEV (Device component use); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation and reaction in preparation of bialkenyl derivative liquid crystals for display devices)

IT 197804-19-6P, 1-(2,2-Difluoroethenyl)-trans-4-(trans-4-(4-(3-butenyl)phenyl)cyclohexyl)cyclohexane  
RL: DEV (Device component use); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation and use in liquid crystal compns. for electrooptical display devices)

IT 197804-14-1P, 1-(2,2-Difluoroethenyl)-trans-4-(trans-4-(3-butenyl)cyclohexyl)cyclohexane 197804-15-2P 197804-23-2P 197804-26-5P, 1-(4,4-Difluoro-3-butenyl)-trans-4-(trans-4-(3-butenyl)cyclohexyl)cyclohexane  
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation and use in liquid crystal compns. for electrooptical display devices)

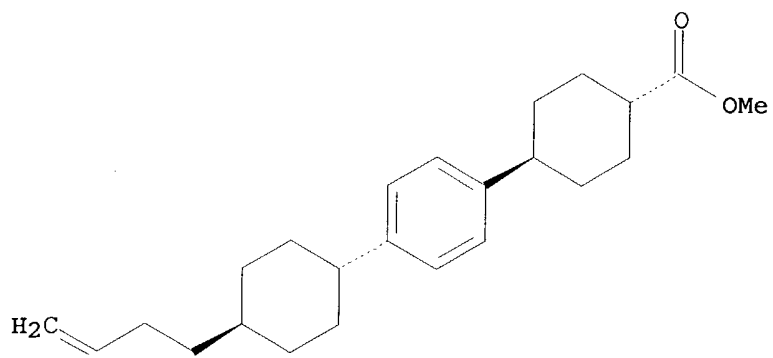
IT 1779-49-3, Methyl triphenylphosphonium bromide 1895-39-2, Sodium chlorodifluoroacetate 4009-98-7, Methoxymethyltriphenyl phosphonium chloride 187526-09-6, Methyl trans-4-(trans-4-(2-formylethyl)cyclohexyl)cyclohexane carboxylate 197804-16-3 197804-20-9 197804-24-3, Methyl trans-4-(4-(4-(trans-(2-formylethyl)cyclohexyl)phenyl)phenyl)cyclohexane carboxylate  
RL: DEV (Device component use); RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
(reaction in preparation of bialkenyl derivative liquid crystals for display devices)

IT 197804-25-4P, Methyl trans-4-(4-(4-(trans-4-(3-butenyl)cyclohexyl)phenyl)phenyl)cyclohexane carboxylate  
RL: DEV (Device component use); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation and reaction in preparation of bialkenyl derivative liquid crystals for display devices)

RN 197804-25-4 CAPLUS

CN Cyclohexanecarboxylic acid, 4-[4-[4-(3-butenyl)cyclohexyl]phenyl]-, methyl ester, [trans(trans)]- (9CI) (CA INDEX NAME)

Relative stereochemistry.





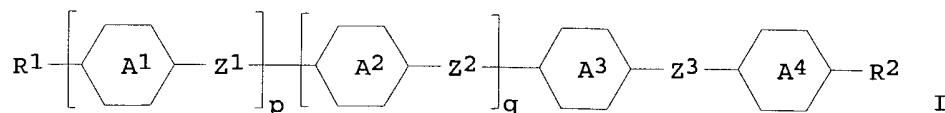
AN 1998:208506 CAPLUS  
 DN 128:302170  
 ED Entered STN: 13 Apr 1998  
 TI Compounds having alkadienyl side chain, with a large elastic constant ratio, steep electro-optic characteristics and a little temperature dependence in a low temperature range, and liquid crystal composition using same  
 IN Kato, Takashi; Miyazawa, Kazutoshi; Matsui, Shuichi; Takeuchi, Hiroyuki; Takeshita, Fusayuki; Hisatsune, Yasusuke; et al.  
 PA Chisso Corp., Japan  
 SO PCT Int. Appl., 101 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C07C013-28  
 ICS C07C015-50; C07C022-00; C07C023-18; C07C025-24; C07D213-02; C07D239-24; C07D319-06; C09K019-30; C09K019-34; C09K019-42; G02F001-13; G09F009-35  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 24  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9813321	A1	19980402	WO 1997-JP3347	19970922
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9742224	A1	19980417	AU 1997-42224	19970922
	EP 925268	A1	19990630	EP 1997-940441	19970922
	R: DE				
	JP 2001500894	T2	20010123	JP 1998-515484	19970922
	US 6174457	B1	20010116	US 1999-242333	19990211
PRAI	JP 1996-277596	A	19960927		
	WO 1997-JP3347	W	19970922		

# CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9813321	ICM	C07C013-28
	ICS	C07C015-50; C07C022-00; C07C023-18; C07C025-24; C07D213-02; C07D239-24; C07D319-06; C09K019-30; C09K019-34; C09K019-42; G02F001-13; G09F009-35

OS MARPAT 128:302170  
 GI



AB The title compds. useful for liquid crystal display devices are of the general formula I, wherein R1 = C4-10 (fluoro)alkadienyl; R2 = C1-10 (fluoro)alkenyl; one or more non-adjacent methylene groups (-CH2-) in the alkadienyl group or the alkenyl group may be replaced by -O- or the like; A1-4 = (halo)-1,4-cyclohexylene, 1,4-phenylene; Z1-3 = -CH2CH2-, -CF=CF-, p, q = 0, 1. 4'-(1,5-Hexadienyl)-4-(3-butenyl)bicyclohexane was prepared starting from Me 4-oxobicyclohexane-4'-carboxylate.

ST liq crystal display alkadienyl compd; alkadienyl bicyclohexane liq crystal display

IT Liquid crystal displays  
Liquid crystals

(compds. having alkadienyl side chain, with a large elastic constant ratio, steep electro-optic characteristics and a little temperature dependence in a low temperature range, and liquid crystal composition using

same)

IT 187525-92-4P 187526-09-6P 189361-87-3P 189361-88-4P 205864-68-2P  
205864-69-3P 205864-70-6P 205864-71-7P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(compds. having alkadienyl side chain, with a large elastic constant ratio, steep electro-optic characteristics and a little temperature dependence in a low temperature range, and liquid crystal composition using

same)

IT 205864-72-8P 205864-73-9P 205864-74-0P 205864-75-1P 205864-77-3P  
205864-78-4P 205864-79-5P 205864-80-8P 205864-81-9P 205864-82-0P  
205996-45-8P 205996-46-9P 205996-47-0P 205996-48-1P 205996-49-2P  
205996-50-5P 205996-51-6P 205996-52-7P 205996-53-8P 205996-54-9P  
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205998-34-1P 205998-35-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(compds. having alkadienyl side chain, with a large elastic constant ratio, steep electro-optic characteristics and a little temperature dependence in a low temperature range, and liquid crystal composition using

same)

IT 56771-29-0 155366-57-7 183244-97-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(compds. having alkadienyl side chain, with a large elastic constant ratio, steep electro-optic characteristics and a little temperature dependence in a low temperature range, and liquid crystal composition using

same)

IT 61203-99-4 61204-01-1 62788-07-2 68065-81-6

RL: TEM (Technical or engineered material use); USES (Uses)

(compds. having alkadienyl side chain, with a large elastic constant ratio, steep electro-optic characteristics and a little temperature dependence in a low temperature range, and liquid crystal composition using

same)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Chisso Corporation; WO 9622261 A1 1996 CAPLUS
- (2) Chisso Corporation; WO 9713821 A1 1997 CAPLUS
- (3) F Hoffmann-La Roche Ag; EP 0501268 A2 1992 CAPLUS

IT 205997-22-4P 205997-24-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(comps. having alkadienyl side chain, with a large elastic constant ratio, steep electro-optic characteristics and a little temperature dependence in a low temperature range, and liquid crystal composition using

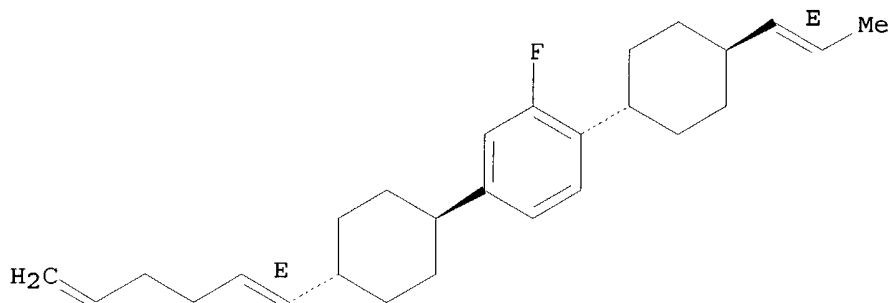
same)

RN 205997-22-4 CAPLUS

CN Benzene, 2-fluoro-4-[trans-4-(1E)-1,5-hexadienylcyclohexyl]-1-[trans-4-(1E)-1-propenylcyclohexyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

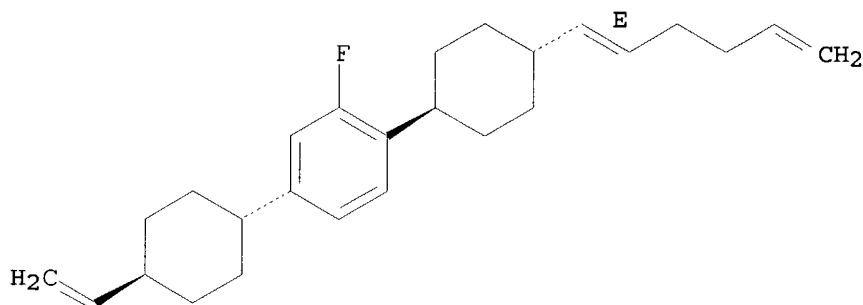


RN 205997-24-6 CAPLUS

CN Benzene, 4-(trans-4-ethenylcyclohexyl)-2-fluoro-1-[trans-4-(1E)-1,5-hexadienylcyclohexyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.



AN 2000:494695 CAPLUS  
 DN 133:201061  
 ED Entered STN: 23 Jul 2000  
 TI LC diketones: synthesis, transformations and mesomorphic properties  
 AU Bezborodov, V. S.; Sasnouski, G. M.; Lapanik, V. I.  
 CS Institute of Applied Physics Problems, Minsk, 220064, Belarus  
 SO Liquid Crystals (2000), 27(7), 935-941  
 CODEN: LICRE6; ISSN: 0267-8292  
 PB Taylor & Francis Ltd.  
 DT Journal  
 LA English  
 CC 75-11 (Crystallography and Liquid Crystals)  
 Section cross-reference(s): 25, 28  
 AB The synthesis and chemical transformations of various diketones into liquid crystalline compds. are discussed. The diketones were prepared by the interaction of cyclohexene with acid chlorides and benzene in the presence of Al chloride (Nenitzescu method) or by Friedel Crafts reaction of trans-4-alkanoyl-1-phenylcyclohexanes or trans-2-alkyl-5-phenylcyclohexanones with acid chlorides, or by the condensation of corresponding Mannich salts with 2-substituted acetoacetates or acetylacetone.  
 ST diketone liq crystal synthesis transformation mesomorphic property  
 IT Cyclization  
 (Nenitzescu; in liquid crystal diketones: synthesis, transformations and mesomorphic properties)  
 IT Ketones, properties  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)  
 (diketones; liquid crystal diketones: synthesis, transformations and mesomorphic properties)  
 IT Friedel-Crafts reaction  
 Mannich reaction  
 (in liquid crystal diketones: synthesis, transformations and mesomorphic properties)  
 IT Liquid crystals  
 (liquid crystal diketones: synthesis, transformations and mesomorphic properties)  
 IT Liquid crystals  
 (transitions; liquid crystal diketones: synthesis, transformations and mesomorphic properties)  
 IT 289058-98-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and dehydrohalogenation of)  
 IT 148065-17-2P 172299-26-2P 172299-28-4P 200133-55-7P 200133-56-8P  
 200133-57-9P 200133-58-0P 200260-06-6P 205763-24-2P 205763-25-3P  
 205763-26-4P 205763-27-5P 205763-28-6P 205763-29-7P 205763-30-0P  
 205763-31-1P 205763-32-2P 205763-33-3P 205763-34-4P 289058-73-7P  
 289058-74-8P 289058-75-9P 289058-76-0P 289058-85-1P 289058-95-3P  
 289058-96-4P  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)  
 (preparation and liquid crystal properties and reactions of)  
 IT 79832-85-2P  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)  
 (preparation and liquid crystal properties and reduction of)  
 IT 207852-13-9P 207852-14-0P 207852-15-1P 289058-89-5P 289058-90-8P  
 289058-91-9P 289058-99-7P  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation and liquid crystal properties of)

IT 289059-00-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction with hexyloxyaniline)

IT 75669-07-7P 148065-16-1P 205763-23-1P 207852-08-2P 207852-09-3P  
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 289058-83-9P 289058-84-0P 289058-86-2P 289058-87-3P 289058-88-4P  
 289058-92-0P 289058-93-1P 289058-94-2P  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and thermal behavior and reactions of)

IT 289058-97-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and transformation to chloride)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bezborodov, V; Conference Summaries, 7th International Conference on Ferroelectric Liquid Crystals 1999, P220
- (2) Bezborodov, V; Liq Cryst 1996, V21, P237 CAPLUS
- (3) Bezborodov, V; Liq Cryst 1997, V23, P69 CAPLUS
- (4) Bezborodov, V; Liq Cryst 1998, V24, P647 CAPLUS
- (5) Bezborodov, V; Mol Cryst liq Cryst 1997, V299, P1 CAPLUS
- (6) Bezborodov, V; Mol Cryst liq Cryst 1997, V303, P297 CAPLUS
- (7) Brett, R; J mater Chem 1996, V6, P747 CAPLUS
- (8) Cereghetti, M; Helv Chem Acta 1982, V65, P1318 CAPLUS
- (9) Karamysheva, L; Mol Cryst liq Cryst 1990, V191, P259 CAPLUS
- (10) Lauk, U; Helv Chem Acta 1985, V68, P1406 CAPLUS
- (11) Nenitzescu, C; Liebigs Ann 1935, VS19, P260
- (12) Osman, M; Mol Cryst liq Cryst 1984, V116, P141 CAPLUS
- (13) Sasnovski, G; Mol Cryst liq Cryst 1997, V303, P313 CAPLUS
- (14) Sucrow, W; Chem Ber 1986, V119, P387 CAPLUS

IT 289058-99-7P  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation and liquid crystal properties of)

RN 289058-99-7 CAPLUS

CN Benzene, 1,4-bis[trans-4-(1E)-1-propenylcyclohexyl]- (9CI) (CA INDEX NAME)

Relative stereochemistry.  
 Double bond geometry as shown.

